

What is claimed is:

1. A compressible reactor for treating and disposing of a toxic chemical, said compressible reactor comprising:

a single-use vessel for holding a frangible container and a volume of treatment chemical, said single-use vessel having a compression section and a

5 treatment portion;

a cover fastened to said single-use vessel;

a compression support frame fixedly mounted with respect to said single-use vessel;

a jack positioned on said cover, said jack being operative to extend
10 between said cover and said compression support frame so that said compression section of said vessel is compressed; and

an impact member fixed to said cover, wherein upon compression of said compressible section, said impact member breaks said frangible container.

2. The compressible reactor of claim 1, further including a septum formed within said cover.

3. The compressible reactor of claim 1, wherein said bottle is a glass ampoule.

4. The compressible reactor of claim 1, wherein said bottle contains a chemical weapon materiel.

5. The compressible reactor of claim 1, further including a cradle positioned within said treatment portion, for holding said frangible container.

6. The compressible reactor of claim 5, wherein said cradle contains penetrations to facilitate mixing of said toxic chemical and said treatment chemicals.

7. The compressible reactor of claim 1, wherein said cover includes a cover gasket.

8. A reactor vessel for treating and disposing of a toxic chemical, said reactor vessel comprising:

a hand held treatment vessel for holding a volume of treatment chemical and a frangible container of a toxic chemical, said vessel having a
5 base;

a cover removably coupled to an end of said hand held treatment vessel; and

at least one impact weight movably positioned within said hand held treatment vessel, wherein upon agitation of said hand held treatment vessel,
10 said impact weight is operative to break said frangible container.

9. The reactor vessel of claim 8, further including a penetration pin fixed to said base on an inside of said hand held treatment vessel to aid in the breaking of said frangible container.

10. The reactor vessel of claim 8, further including a septum formed in said cover for access to said hand held treatment vessel.

11. A method for treating a toxic chemical using a single use vessel having a compression section, said method comprising the steps of:

placing a frangible container in said single use vessel so that said frangible container is internally aligned with an impact member;

5 inserting a treatment chemical into said single use vessel;

sealing said single-use treatment vessel;

operating a jack so that a force is exerted upon said compressible section such that said compressible section is compressed and said impact member breaks said frangible container so that said treatment chemical is
10 mixed with said toxic chemical; and

shaking said single-use vessel to facilitate mixing between said treatment chemical and said toxic chemical.

12. The method as claimed in claim 11, further comprising the step of:

sampling said treatment chemical mixed with said toxic chemical through a septum.

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13. A method for treating a toxic chemical using a hand held treatment vessel, said method comprising the steps of:

placing a frangible container of a toxic chemical in said hand held treatment vessel;

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inserting a treatment chemical into said hand held treatment vessel;

placing a weight into said hand held treatment vessel;

sealing said hand held treatment vessel;

striking an end of said hand held treatment vessel so that said weight breaks said frangible container; and

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shaking said hand held treatment vessel to facilitate mixing between said treatment chemical and said toxic chemical.

14. The method as claimed in claim 13, further comprising the step of:

sampling said treatment chemical mixed with said toxic chemical through a septum.

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15. A system for treating and disposing of a toxic chemical said system comprising:

a single-use vessel holding a frangible container which contains said toxic chemical and a volume of treatment chemical, said single-use vessel

5 having a compressible section and a treatment portion;

a cover fastened to said single-use vessel;

a compression support frame fixedly mounted with respect to said single-use vessel;

a jack positioned on said cover, said jack being operative to extend
10 between said cover and said compression support frame so that said compressible section of said vessel is compressed; and

an impact member fixed to said cover, wherein upon compression of said compression section, said impact member breaks said frangible container and releases said toxic chemical to react with said treatment chemical.

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16. A reactor system for treating and disposing of a toxic chemical said reactor system comprising:

a hand held treatment vessel holding a volume of treatment chemical and a frangible container containing said toxic chemical, said vessel having a

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5  base;
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a cover removably coupled to an end of said hand held treatment vessel; and

at least one impact weight movably positioned within said hand held treatment vessel, wherein upon agitation of said hand held treatment vessel, said impact weight is operative to break said frangible container and release said toxic chemical to react with said treatment chemical.

10 said impact weight is operative to break said frangible container and release
said toxic chemical to react with said treatment chemical.

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